

**REMOTE POINTING SYSTEM, DEVICE AND METHODS FOR IDENTIFYING  
ABSOLUTE POSITION AND RELATIVE MOVEMENT ON AN ENCODED  
SURFACE BY REMOTE OPTICAL METHOD**

**ABSTRACT**

A pointing system comprises an encoded surface and a pointing device for use with an encoded surface remote from the pointing device. The pointing device comprises a collimated light source for projecting a collimated light beam having a wavelength outside the visible light spectrum onto the encoded surface. The encoded surface scatters the collimated light beam striking the encoded surface. A detector associated with the collimated light source detects at least a portion of the scattered light. A controller is associated with the detector and configured to respond to the detected portion of the scattered light to determine a position where the collimated light beam strikes the encoded surface. The position corresponds to where the device is pointing.